

1 **(BSP June 11, 2003)**

2 **Column Jacketing Materials**

3 All metal components shall conform to ASTM A 36M, and shall be painted in
4 accordance with Section 6-07.3(1), and Section 6-03.3(30) as supplemented in
5 these Special Provisions. Metal surfaces in contact with grout shall be considered
6 in contact with concrete for the purposes of Section 6-07.3(1).
7

8 Grout shall conform to the following requirements:
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10 Cement shall conform to Section 9-01.2(1), Type I or II, and shall not contain
11 lumps or other indications of hydration.
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13 The grout shall be a pumpable mix capable of filling the annulus between the
14 concrete column and the steel column jacket assembly. The grout shall be
15 free of lumps and undispersed cement, and there shall be no visible evidence
16 of water or air being ejected from the grout vents while pumping the grout in
17 place.
18

19 Aggregate and fly ash shall be used to extend the grout. Aggregate shall
20 conform to either Section 9-03.1(2) Class 1 or Class 2, or Section 9-03.1(5)
21 with a maximum aggregate size of 10 millimeters. Fly ash shall conform to
22 Section 9-23.9. The fly ash content shall not exceed 25 percent of the total
23 cementitious material content of the grout.
24

25 The grout mix water/cement ratio shall not exceed 0.40.
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27 The grout shall attain a minimum 28 day compressive strength of 28 MPa.
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29 The Contractor shall submit the grout mix design to the Engineer for approval.
30 The Contractor shall not begin any column jacketing work until receiving the
31 Engineer's approval of the grout mix design.
32

33 Mortar shall conform to Section 9-11.3.
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35 Epoxy bonding agent for filling grout voids shall be Type II, as specified in Section
36 9-26.1. The grade and class of epoxy bonding agent shall be as recommended by
37 the bonding agent manufacturer and approved by the Engineer.